

# Academic amidst Pandemic: A Survey of the Learning Experiences among Filipino Undergraduate Students

Arvy James C. de Guzman

Western Mindanao State University

**Abstract:** The global spread of Covid-19 has brought significant changes in the lives of many people around the globe and has forced many educational institutions to move from the traditional in person classes to online mode of learning. Thus, there is a need to know the learning experience of the student's despite of the sudden shift in the mode of learning. In lieu of this matter, the objective of this study is to understand the undergraduate student's learning experiences 2 years after the global outbreak of COVID-19. This study employed an adapted Questionnaire from the study of Zhou & Zhang (2021) and surveyed 60 undergraduate students. The result of the study implies that there is a positive overall learning experience among the undergraduate students but they have a low level of mental health. The study also discovers that the undergraduate Students have an average perception of the learning community during the pandemic and they received a sufficient amount of student and peer support. Moreover, it has been found out through this study that there are more hindrances than benefits in this kind of learning set up.

**Keywords:** Undergraduate students; COVID-19; Remote learning; online learning; Mode of learning; Survey.

---

## Introduction

The Covid-19 pandemic outbreak created a paradigm shift in our educational system. The traditional in person classes was forced to transform into virtual form of learning to be able to provide an ongoing education for students (Van lancker & Parolin, 2020). The sudden outbreak of this infectious disease was reported by UN Educational, Scientific, and cultural organization (2020) to have a worldwide closure of schools in 111 countries affecting the 61 % of global student population which is about 1.07 billion students around the globe. In light of this situation the students as well as the teachers were forced to adapt to the safest mode of learning since the traditional in person interactions were not anymore, an option. The remote learning was considered the safest mode of learning, but the lack of in- person interaction may lead to loneliness or even depression (Zhou & Zhang, 2021). Blended learning, as a tradeoff between in-person interaction and safety concerns might provide the best learning mode for undergraduate students (Zhou & Zhang, 2021) But this sudden transition proved to be problematic as students as well as the teachers often lack prior knowledge in online learning experience (Barbour & Reeves, 2009) and maladaptation of online learning could lead inexperienced students to certain vulnerabilities, including decrement in academic performance (Molnar et al., 2019) lack of motivation (Muilenburg & Berge, 2005) and feeling of isolation (Song et al. 2004) but due to growing cases of COVID-19, it is possible for online learning to last longer than expected (World Health Organization, 2020) and The mass adoption of this mode of learning could have a long lasting effect on the global education system, accelerating the growth and expansion of virtual schools worldwide (Molnar et al., 2019) Thus, it is imperative to study and understand the undergraduate student's experiences and conditions during this time of COVID-19 pandemic.

This current mode of learning is really a challenge for both teachers and students, both parties

are still learning to adapt and cope with the demands of this new educational system (Zhou & Zhang, 2021). Most of the studies available were conducted right after academic institutions closed and most of these studies puts more emphasis on the experiences of those students who had a really hard time coping with the new mode of learning (Cicha, 2020). Thus, it is crucial to investigate the undergraduate student's online learning experiences 2 years after the COVID-19 pandemic outbreak. Will they still manifest the same level of anxiety and depression, two years after the Global pandemic outbreak?

Thus, the objective of this study is to discover the undergraduate student's learning experiences and in particular, perception of learning community, hindrances that they have encountered, level of satisfaction and their mental health, including their depression and anxiety level, 2 years after the COVID-19 outbreak.

### **This study aims to answer the following research questions:**

RQ1: What was the undergraduate student's overall learning process during the pandemic?

RQ2: What was the impact of the pandemic on the undergraduate Student's mental health?

RQ3: What was the undergraduates Student's perception of the learning community during the pandemic?

RQ4: What was the Undergraduate students' perception of student support during the pandemic?

RQ5: What were the pros and cons of taking an online course during pandemic?

## **REVIEW OF RELATED LITERATURE**

### ***Online learning***

Because of the Covid-19 catastrophe, many countries have implemented curfews and lockdowns to cope with the growing cases of COVID-19 (Alawamleh, 2020) and forced schools and universities around the globe to shift from the traditional brick and mortar classroom to virtual classroom. Online learning as defined by (Benson, 2002) is the assessment of learning using a certain technology? Online learning is a modern form of distant learning wherein it enhances students access and educational opportunities (Conrad, 2002) the ease of online learning allows direct communication of teachers and learners in the virtual class (Fedynich,2013). Technology has become a powerful tool to handle education and training as well as retraining needs of our modernized society (Berge, 2007) . Now because of the global pandemic it has been in trend especially in the field of education and for higher learning institutions, online learning will continue to be an integral part of the teaching and learning system (Croxton, 2014).

Many experts have discussed the usability, mobility, as well as the interactivity of online learning (Ally, 2004) combined with lower class withdrawal rates, academic institutions discovered that online learning is very effective and efficient in multiple aspects before it even came to be integrated (Steen,2008). Many students were engrossed to enroll and take online courses as it lessens the opportunity cost for students as well as the University (Dziuban et al., 2005). Previous studies shown that there were pros and cons of online learning (Sheng & Chuang, 2010). Online learning promotes lifelong learning among students (Dhawan, 2020) but on the other hand online learning can be challenging to those disabled, and marginalized learners, it is according to The Regional Risk Communication and Community Engagement (RCCE) working group (2020). And Philippines being one of the third world countries, is also at risk because of its limited resources.(Marquez et al.,2020). Therefore, it is very vital for us to know and to understand the online learning experiences of undergraduate students belonging to 3<sup>rd</sup> world countries such as the Philippines.

### ***Online learning experience***

Numerous studies have suggested including those of Cole, Field & Harris (2004) and Ryan (2001) That learner's motivation is a vital factor influencing Student's online learning success. And learner's motivation is influenced by interest of the subject content and its perceived

relevance (Aldler, Milne & Stablein, 2001). The more the students perceived some benefits the more they become motivated and the more they perform well (Cappel & Smart, 2006).

There are several of studies such as the study of Benek-Rivera & Mathews (2004) which iterates the importance of active learning process, in which Learner's active participation in college. It can boost learning by applying materials to solve real world challenges and situations (Eble, 1998) because it promotes deeper understanding and develop critical thinking (Cappel & Smart, 2006). With the rise of modern technologies, activities can be interactive through web-based applications and online course works are now capable to create an environment that can boost student engagement with materials, refine and build new knowledge and learn more by experiencing firsthand (Johnston, Killion & Omomen, 2005). By integrating real world context through online instructions, learnerought to be more engage in solving real world challenges (Duffy & Cunningham, 1996).

In the study of (McDonald, 1999-2000). Online learning has proved to be cost efficient when it comes to delivering standardized content and can provide a flexible and convenient ways of taking online units (Cappel & Smart, 2006). However There have been numerous studies regarding online learning experiences during the wake of the pandemic which emphasized several major concerns such as Issues of internet connection (Agung et al., 2020), Issues on Digital equipment and digital literacy (Niemi & Kousa, 2020) as well as the lack of collaborative opportunities (Yates et al., 2020) and lack of motivation (Basuony et al., 2020).

The current mass adoption of online mode of learning might have a lasting impact on the global academic sector (Molnar et al., 2019). Berge (2005) emphasized that the pedagogical approach as well as the Digital readiness creates a divide among countries, posing an impact on the learning experiences of each learners. And countries with low digital readiness are prone to technological challenges (Yan et al., 2021). Technical issues among modern devices have proven to have an impact on student's online learning experience (Barbour & Reeves, 2009). Therefore, it is imperative to know and understand the student's online learning experiences during pandemic (Yan et al., 2021).

### **Academic Response to COVID-19**

The Covid-19 pandemic has made a great impact on the higher education Sectors around the globe (Crawford, et Al., 2020). Private universities around the globe have taken measures to execute online teaching during the time of pandemic (Crawford, et al., 2020). Private universities such as New York University Shanghai, Duke Kunshan University and Zhejiang University have shifted from online learning by February of 2020, although there is a need to take a step and shift from online learning, there were some universities who lack the capacity to sustain or even shift to online mode of learning (Leung & Sharma, 2020) because most of them are unprepared from the sudden shift (Crawford et al., 2020). In order to cope up with the pandemic, Higher education institutions around the world have radically modified their curriculum to adapt remote, online and distant mode of delivery (Murphy, 2020). The study of Muirhead (2000) demonstrated that online learning can be used to improve the traditional mode of learning as well as home schooling. And was found in the study of Anastasiades (2010) that the used of Interactive Video Conferencing plays an important role to promote active learning through online mode. The study of Qui (2017) and Baiyere & Li (2016) discovered that virtual learning can also be integrated in other courses. However many studies also indicated that although there were actual plans to use online mode of learning during COVID-19, these mostly concerns not in the global crisis but rather on small cases only (Basiliaia & kvavadze, 2020) especially those countries who doesn't have the capacity or means to shift radically from virtual learning (Sintema, 2020) It is then, found in numerous studies also that, in order for higher universities and schools to integrate an effective virtual learning environment, there should be an ample technical support (Basiliaia & Kvavadze, 2020). These factors had a profound impact on third world countries such as Philippines whose limited resources constraining it during the wake of pandemic (Marquez et Al., 2019), thus it is very vital to understand the experiences of Filipino learners in their online

learning during the pandemic, being one of the third world countries.

## METHODOLOGY

### **Research Design**

This study is descriptive quantitative research. With a goal to utilize a set of questionnaires consisting of 36 items in total, to determine the learning experiences of Filipino undergraduate students two years after the pandemic outbreak.

### **Research Instrument**

This study adopted four valid instruments from the study of Zhou & Zhang (2021). In order to measure student's online learning experiences during the pandemic, The Online Learning Experience Questionnaire (OLEQ) was utilized. The two scales namely Generalized Anxiety Disorder Scale (GAD-7) and The well-being Index (WHO-5) were also used to measure mental health condition during the pandemic and the Course Experience Questionnaire (CEQ) was incorporated mainly to measure both the quality of teaching and learner satisfaction.

The questionnaire was composed of 42 items in total of which 6 items were for demographic Profile and the other 36 items corresponds to the 5 research questions.

### **Pilot testing**

The pilot testing was conducted via online survey through Google forms. The total number of respondents were 40 in which majority were females (77.5%) with a mean of 1.77, which mostly were third year college students (77.5%) followed by Fourth year college students (15.0%) as well as First year college students (7.5%) with a mean value of 3.00. Most of the respondents were Chavacanos (22.5%) and Zamboangeños (6.7%) in which majority belongs to low income family (65.0%) while the rest of the population belongs to lower middle income family (20.0%), Middle income family ( 12.5%) and upper middle income family (2.5%) with a mean value of 1.53 and most of them prefer blended mode of learning (62.5%) while the rest prefer online mode of Learning (30.0%) and Modular (7.5%) with a mean value of 1.78. Lastly, more than half of the respondents were having their class at home (75%).

### **Coding Procedure**

Most of the items in the questionnaire utilize reverse coding, in which the researcher assigned a numeral figure (e.g., 1, 2, 3, 4...) to each of the choices in the scale. The online learning Experience Questionnaire (OLEQ), the Generalized Anxiety Disorder Scale (GAD-7), Well-being Index (WHO-5) and The Course Experience Questionnaire (CEQ) uses 5-point Likert scale with reverse coding ranging from strongly disagree to strongly agree.

### **Table of Analysis**

**Table 1. Cronbach's Alpha coefficient for Learning Experience**

Dimensions	N (No. Of items)	Internal consistency
Overall learning process	10	.766
Mental health	14	.942
Perception of learning community	5	.748
Perception of student support	5	.624

## **CHAPTER IV**

### **PRESENTATION, ANALYSIS AND INTERPRATATION OF DATA**

This section displays the result and the analysis of data as well as the discussion and interpretation.

## RESULTS

### *Overall learning process of the respondents*

The Table 4.0 presents the data based on the responses on the Online learning experience questionnaire that was analyzed and coded. Descriptive statistics using SPSS, mean (M), standard deviation (SD) was employed. The Table displays the frequency and its corresponding percentage in every item of the questionnaire as well as the interpretation (interpret.)-1.00-1.80(Highly Negative [HN]), 1.81-2.60(Negative[N]),2.61-3.40 (Average[A]), 3.41-4.20 (Positive[P]), 4.21-5.00(Highly Positive [HP]).

*Table 4.0 Overall learning processes*

As presented in the table 4.0 through a descriptive analysis of the data provided the respondents have a positive overall learning process with mean score ranging from 3.07-4.00 and an average mean score of 3.62 which implies “Positive” learning process. This result can also be reflected in the study of Zhou & Zhang (2020) which yielded the same result as the current study. We can say that the consistency of the result of the latter study and the present study is a proof that there is a consistency with the results of the data even across different settings.

#Statement	Responses											
	SD		D		U		A		SA		M	Interpret.
	N	%	N	%	N	%	N	%	N	%		
1. I was encouraged to take responsibility for my own learning	2	3.3	5	8.3	8	13.3	21	35.0	24	40.0	4.00	P
2. I was able to work through the subject materials at my own pace	1	1.7	6	10.0	14	23.3	32	53.3	7	11.7	3.63	P
3. It was easy to navigate the subject learning materials	1	1.7	20	33.3	15	25.0	22	36.7	2	3.3	3.07	A
4. The face-to-face resource session where valuable when supplemented with online learning	2	3.3	2	3.3	20	33.3	25	41.7	11	18.3	3.68	P
5. Electronic communication with subject lecture is useful	1	1.7	5	8.3	17	28.3	25	41.7	12	20.0	3.70	P
<b>Overall learning process</b>											<b>3.62</b>	<b>P</b>

### **Mental Health (GAD-7)**

To determine the respondent's mental health, the Generalized Anxiety Disorder Scale (GAD-7) was utilized, the responses from the mentioned questionnaire was coded and treated with descriptive statistics through SPSS software. The data and analysis was then displayed in Table 5.0 which includes the frequency and the corresponding percentage of each responses in every item in the questionnaire as well as the mean scores (M) and the interpretations (Interpret)- 1.0-1.75(Very High [VH]), 1.76-2.5 (High[H]), 2.6-3.25 (Low[L]), and 3.26-4.00 (Very Low [VL]).

Table 5.0 Respondent's Mental Health

## Responses

#Statement	NA		SD		MHD		NED		M	Interpret.
	N	%	N	%	N	%	N	%		
1. How often do you feel nervous?	2	3.3	24	40.0	11	18.3	23	38.3	2.92	L
2. How often do you feel anxious?	3	5.0	22	36.7	8	13.3	27	45.0	3.03	L
3. How often do you feel on edge?	6	10.0	24	40.0	10	16.7	20	33.3	2.73	L
4. How often do you feel not being able to stop or control worrying?	4	6.7	18	30.0	14	23.3	24	40.0	2.97	L
5. How often do you feel being restless that it's hard to sit still?	4	6.7	21	35.0	11	18.3	24	40.0	2.92	L
6. How often do you feel becoming easily annoyed or irritated?	7	11.7	20	33.3	12	20.0	21	35.0	2.78	L
7. How often do you feel being afraid as if something awful might happen?	3	5.0	17	28.3	15	25.0	25	41.7	3.03	L
8. Worrying too much about different things	2	3.3	17	28.3	6	10.0	35	58.3	3.23	L
9. Having Trouble relaxing	7	11.7	15	25.0	13	21.7	25	41.7	2.93	L
<b>Overall mental health</b>									2.94	L

Based on the data provided in Table 5.0 we can infer that the respondents are inclined to negative mental health as reflected in the mean scores ranging from 2.73-3.23 and an average mean score of 2.94 suggesting a "Low" level of mental health condition this may be the cause of the constant stressors brought about by the pandemic causing the respondents to have trouble relaxing which might have cause a negative impact on their mental well-being. The higher the mean score or the response value the higher will be the negative impact on the mental health of the respondents.

**Mental Health (WHO-5)**

To further know the impact of the pandemic on the mental well-being of the respondents, the WHO-5 questionnaire with a 6-point Likert scale was employed. The raw data was analyzed, coded, and presented in Table 5.5 together with the frequency and the corresponding percentage

of each response in every item encrypted in the questionnaire as well as the mean score (M) and the interpretation (Interpret)- 1.0-1.8(Needs Medication[NM]), 1.83-2.65 (Very Low[VL]), 2.66-3.48 (Low[L]), 3.49-4.31 (Moderate[M]), 4.32-5.14 (Moderately High[MH]), 5.15-5.97 (High [H]), and 5.98-6.00 (Very High[VH]).

*Table 5.5 Respondent's Mental Health (WHO-5)*

#### Responses

#Statement	NT		ST		LHT		MHT		MTT		AT		M	Interpret.
	N	%	N	%	N	%	N	%	N	%	N	%		
1. I have felt calm and relaxed	8	13.3	23	38.3	15	25.0	10	16.7	4	6.7	0	0	3.35	L
2. I have felt active and vigorous	7	11.7	27	45.0	12	20.0	9	15.0	4	6.7	1	1.7	3.07	L
3. I woke up feeling fresh and rested	16	26.7	19	31.7	13	21.7	6	10.0	4	6.7	2	3.3	3.13	L
4. I have felt cheerful and in good spirit	14	23.3	19	31.7	14	23.3	7	11.7	4	6.7	2	3.3	3.62	A
5. My daily life has been filled with things that interests me	11	18.3	18	30.0	12	20.0	14	23.3	2	3.3	3	5.0	3.10	L
<b>Overall mental health</b>										3.24		L		

The analysis of the data provided in Table 5.5 reveals that the respondents have a low level of mental well-being suggested by the mean scores ranging from 3.07-3.62 with an average mean value of 3.24 characterized as having a “low” level of mental well-being, the higher the mean score or the response value is the better will be the mental health. This suggests that the respondents are more inclined to mental health problems.

#### Respondent's perception of learning community

Table 6.0 presents the analysis of the data after performing descriptive statistics. The frequency, the corresponding percentage, the mean score (M), and the interpretation (Interp)- 1.00-1.80(Highly Negative [HN]), 1.81-2.60(Negative[N]),2.61-3.40 (Average[A]), 3.41-4.20 (Positive[P]), 4.21-5.00(Highly Positive [HP]) are all reflected on the table.

*Table 6.0 Respondent's Perception of learning community*

#### Responses

#Statement	SD		D		U		A		SA		M	Interpret.
	N	%	N	%	N	%	N	%	N	%		
1. I felt part of group of students and teachers committed to learning	2	3.3	9	15.0	19	31.7	26	43.3	4	6.7	3.35	A
2. I was able to	4	6.7	11	18.3	23	38.3	21	35.0	1	1.7	3.07	A

explore academic interest with teachers and students												
3. I learned to explore ideas confidently with other students	3	5.0	9	15.0	28	46.7	17	28.3	3	5.0	3.13	A
4. Student's ideas and suggestions were used inside the classroom	0	0.0	7	11.7	14	23.3	34	56.7	5	8.3	3.62	P
5. I felt belong to the school community	3	5.0	10	16.7	30	50.0	12	20.0	5	8.3	3.10	A
<b><i>Overall Perception of learning community</i></b>										3.25		A

As inferred by the descriptive analysis of the data provided in Table 6.0 it was clearly depicted in the result that the respondents have an “average” perception of the learning community suggested by the mean scores ranging from 3.7-3.62 and an average mean score of 3.25. This connotes that the respondents receive an average learning community support. The high level of response value and mean scores suggest a more positive perception of learning community.

### **Respondent's Perception of Student support**

The responses from the Course Experience Questionnaire (CEQ) analyzed and coded and was treated using descriptive statistics through the SPSS software application. The analysis of the data can be seen in Table 7.0 which compose of the mean score (M), the frequency together with the corresponding percentage and the interpretation (Interp)- 1.00-1.80(Not Acceptable [NA]), 1.81-2.60(Fairly Acceptable [FA]),2.61-3.40 (Moderately Acceptable [MA]), 3.41-4.20 (Acceptable[A]), 4.21-5.00(Highly Acceptable [HA]).

*Table 7.0 Respondent's perception of students support*

#### Responses

#Statement	SD		D		U		A		SA		M	Interpret.
	N	%	N	%	N	%	N	%	N	%		
1. The library services where readily accessible	1	1.7	11	18.3	16	26.7	27	45.0	5	8.3	3.40	MA
2. I was able to access IT (such as chrome book/iPad) resources when I needed it	0	0.0	7	11.7	11	18.3	37	61.7	5	8.3	3.67	A
3. I was satisfied with the course and career advice provided	5	8.3	11	18.3	22	36.7	18	30.0	4	6.7	3.08	MA
4. Health, social workers, and psychological counseling services met my requirements	5	8.3	8	13.3	18	30.0	19	31.7	10	16.7	3.35	MA
5. Relevant	4	6.7	13	21.7	29	48.3	12	20.0	2	3.3	2.92	MA

learning resources (textbooks, data base, software) where accessible when I needed them												
<b><i>Overall perception of students supports</i></b>										3.28	MA	

Evidently, the analysis of the data provided by Table 7.0 implies that the respondents receive sufficient student support as reflected in the mean scores ranging from 2.92 to 3.67 with an average mean score of 3.28 suggesting a “moderately accepted” level of perceived student support. The higher response value and mean score suggest a higher level of student support. It can be deduced through the result that the respondents have a moderate satisfaction of the student support they received during this pandemic to still forgo their studies.

### Benefits of Remote Learning

To know the possible benefits of remote learning, the Online Learning Experience Questionnaire (OLEQ) with a 5-point Likert scale was employed using descriptive statistics to treat the data gathered from the mentioned questionnaire, the results were encoded and analyzed in Table 8.0. Included in the analysis of data was the frequency, the percentage, the mean scores (M), and the Interpretation (Interp)- 1.00-1.80(Not Acceptable [NA]), 1.81-2.60(Fairly Acceptable [FA]), 2.61-3.40 (Moderately Acceptable [MA]), 3.41-4.20 (Acceptable[A]), 4.21-5.00(Highly Acceptable [HA]).

*Table 8.0 Benefits/challenges /barriers of online learning*

#### Responses

#Statement	SD		D		U		A		SA		M	Interpret.
	N	%	N	%	N	%	N	%	N	%		
1. Convenience in studying	5	8.3	16	26.7	20	33.3	17	28.3	2	3.3	2.92	MA
2. Access of information and learning material	2	3.3	7	11.7	22	36.7	29	48.3	0	0.0	3.30	MA
3. Opportunities to interact with teachers	3	5.0	7	11.7	34	56.7	16	26.7	0	0.0	3.05	MA
4. Opportunities to interact with classmates	1	1.7	13	21.7	18	30.0	25	41.7	3	5.0	3.27	MA
<b><i>Overall benefits of online learning</i></b>										3.13 MA		

The presented data analysis in Table 8.0 suggests that there are “Moderately Acceptable” benefits of online learning which is supported by the mean scores ranges from 2.92-3.30 and an average mean value of 3.13. This only suggests that the respondents have a moderate satisfaction of the learning process; the higher the mean score and the response value are the higher the level of satisfaction will be.

### Challenges/Barrier of Online learning

Table 8.5 presents the analysis of data using a checkbox, different learning hindrances of online learning was encrypted along with corresponding frequencies and percentages of the respondents who answered the OLE questionnaire.

Table 8.5 Challenges/barriers of remote learning

## Responses

Statement: What are your learning hindrances with remote learning?		
	N	%
1. Inadequate opportunity to study with other classmates	2	3.3
2. Inadequate opportunity to discuss with teachers	5	8.3
3. Inadequate opportunities to establish peer support	3	5.0
4. Not confident enough to handle difficult task with online learning mode	11	18.3
5. Difficult to apply concept taught in the subject	7	11.7
6. all of the choices	32	53.3

With the analysis of the data found in Table 8.5 we can infer that the higher the response value is the more difficult or hindered the respondents are. The result of the analysis suggests that 32/60 or 53.3% of the students finds difficulty on all the choices provided such as inadequate opportunity to study with other classmates, inadequate opportunity to discuss with teachers, inadequate opportunity to establish peer support, not confident enough to handle difficult task with online learning, and difficult to apply concept taught in the subject. With this result we can infer that mostly half of the students have been dealing with multiple hindrances in their online learning experience.

### Conclusion

#### Overall learning process

This study found out that there is a positive overall learning process among Filipino undergraduate students, despite of the sudden shift in the educational system from the traditional face to face classes to remote learning or online learning due to the COVID-19 outbreak.

#### Mental health

Unlike the overall learning process of the students which found out to be positive, their mental wellbeing in the other hand was found out to be on low level. The means the respondents are inclined to negative mental health conditions during this time of pandemic.

#### Perception of learning community

This study found out that during this time of pandemic where online learning replaced the traditional in-person learning the respondents have an average perception of the learning community which implies that they received sufficient or average support from the learning community.

#### Perception of student support

The result of this study suggests that the respondents received a sufficient student support during their online learning experience. This is an implication that despite the pressure brought about by this sudden shift in the educational system due to the pandemic, the students still receives an ample amount of support from their peers and classmates.

### ***Benefits and challenges/barriers of online learning***

There is a moderately acceptable level of the benefits of online learning based on the result of this study which implies that there are more hindrances of this kind of educational set up because the students are still coping to this sudden shift in our educational system.

### **REFERENCES:**

1. Adler, R. W., Milne, M. J. & Stablein, R.. (2001). Situated motivation: An empirical test in an accounting Class. Canadian Journal of Administrative Sciences, 18(2), 101-116.
2. Agung, A. S. N., Surtikanti, M. W., & Quinones, C. A. (2020). Students' perception of online learning during COVID-19 pandemic: A case study on the English students of STKIP pamane Talino. SOSHUM: Jurnal Sosial Dan Humaniora, 10(2), 225– 235. <https://doi.org/10.31940/soshum.v10i2.1316>
3. Alawamleh, M. (2020). COVID-19 and higher education economics. Journal of Economics and Economic Education Research, 21(2) ,1-2.
4. Ally, M. (2004). Foundations of educational theory for online learning. Theory and practice of online Learning, 2, 15-44.
5. Anastasiades, P. S. et al. (2010) 'Interactive Videoconferencing for collaborative learning at a distance in the school of 21<sup>st</sup> century: A case study in elementary schools in Greece', Computers and Education, 54(2), 321-339.<https://doi.org/10.1016/j.compedu.2009.08.016>
6. Baiyere, A., & Li, H. (2016) 'Application of a virtual collaborative environment in a teaching case'. In AMCIS 2016: Surfing the IT Innovation Wave – 22<sup>nd</sup> Americas Conference on Information Systems.
7. Barbour, M. K., & Reeves, T. C. (2009). The reality of virtual schools: A review of the ZUO Mingzhang, MA Yunpeng, HU Yue, LUO Heng Literature. Computers & Education, 52(2), 402–416. <https://doi.org/10.1016/j.compedu.2008.09.009>
8. Basilaia, G., et al. (2020) 'Replacing the Classic Learning Form at Universities as an Immediate Response to the COVID-19 Virus Infection in Georgia', International Journal for Research in Applied Science & Engineering Technology (IJRASET), 8(III), 101-108.<https://doi.org/10.22214/ijraset.2020.3021>
9. Basilaia, G., & Kvavadze, D. (2020). Transition to Online Education in Schools during a SARS-CoV-2 Coronavirus (COVID-19) Pandemic in Georgia. Pedagogical Research, 5(4), em0060. <https://doi.org/10.29333/pr/7937>
10. Basuony, M. A. K., EmadEldeen, R., Farghaly, M., El-Bassiouny, N., & Mohamed,E. K. A. (2020). The factors affecting students satisfaction with online education during COVID-19 pandemic: An empirical of an emerging Muslim country. Journal of Islamic marketing. <https://doi.org/10.1108/JIMA-09-2020-0301>
11. Benson, A.D. (2002). Using online learning to meet workforce demand: a case study of stakeholder Influence. Quarterly Review of Distance Education, 3 (4), 443-452.
12. Berge, Z.L. (2007). Barriers and the organization's capabilities for distance education. Distance Learning, 4(4), 1.
13. Berge, Z. L. (2005). Virtual schools: Planning for success. Teachers College Press, Columbia University.
14. Cappel, J., Smart, K. (2006). Students' Perceptions of Online Learning: A Comparative

Study. *Journal of Information Technology Education*, 5, 201-218.

15. Cicha, K., Rizun, M., Rutecka, P. & Strzelecki, A. (2021). COVID-19 and Higher Education: First-Year students' Expectations toward distance Learning. *Sustainability*, 13, 1889. <https://doi.org/10.3390/Su13041889>
16. Conrad, D. (2002). Deep in the hearts of learners: insights into the nature of online community. *The Journal of Distance Education*, 17 (1), 1-19.
17. Cole, M. S., Field, H. S. & Harris, S. G. (2004). Student learning motivation and psychological hardiness: Interactive effects on students' reactions to a management class. *Academy of Management Learning & Education*, 3(1), 64-85.
18. Chen, G., Gašević, D., Guan, Q., Wen, G., Whitelock-Wainwright, A. & Yan, L. (2021). Students' experience of online learning during the COVID-19 Pandemic: A province-wide survey study. *British Journal of Educational Technology*, 52(5), 2038-2057. <https://doi.org/10.1111/bjet.13102>
19. Crawford, J., Butler-Henderson, K., Rudolph, J., Malkaw, B., Glowatz, M., Burton, R., Magni, A., & Lam, S. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning & Teaching*, 3(1), 1-20. <https://doi.org/10.37074/jalt.2020.3.1.7>
20. Croxton, R.A. (2014). The role of interactivity in student satisfaction and persistence in online learning. *Journal of Online Learning and Teaching*, 10(2), 314.
21. Duffy, T. M., & Cunningham, D. J. (1996). Constructivism: Implications for the design and delivery of Instruction. In D. H. Jonassen (Ed.), *Handbook of research for educational communications and technology*. New York: Macmillan.
- Dziuban, C.D., Moskal, P. & Hartman, J. (2005). Higher Education, Blended Learning, and the Generations: Knowledge Is Power-No more Elements of Quality Online Education. Sloan Center For Online Education, Needham, MA, Engaging communities, 88-89.
22. Eble, K. (1994). Craft of teaching: A guide to mastering the professor's art (2<sup>nd</sup> edition), New York: Jossey-Bass.
23. Fedynich, L.V. (2013). Teaching beyond the classroom walls: the pros and cons of cyber learning. *Journal of Instructional Pedagogies*, 13, 1-7.
24. Johnston, J., Killion, J., & Oomen, J. (2005). Student satisfaction in the virtual classroom. *The Internet Journal of Allied Health Sciences and Practice*, 3.
25. Leung, M., & Sharma, Y. (2020, February 21). Online Classes try to fill education gap during epidemic. *University World News*.
26. Marquez, L., Olivar, M., Brijuega, C., Ombar, R., Cerio, W. & Baes, F. (2019). Education and COVID-19: Experiences and insights from a Developing country. *Access: Contemporary issues in education*, 40(1), 84-90. <https://doi.org/10.46786/ac20.5188>
27. Molnar, A., Miron, G., Elgeberi, N., Barbour, M. K., Huerta, L., Shafer, S. R., & Rice, J. K. (2019). Virtual schools in the US 2019. National Education Policy Center.
28. Muirhead, W. (2000), 'Online education in schools', *International Journal of Educational Management*, 14(7), 315-324. <https://doi.org/10.1108/09513540010378969>
29. Murphy, M. (2020). COVID-19 and emergency eLearning: Consequences of the securitization of higher education for Post-pandemic pedagogy. *Contemporary Security Policy*, Advanced Online Publication.
30. McDonald, D. (1999-2000). Improved training methods through the use of multimedia technology. *Journal Of Computer Information Systems*, 40(2), 17-20.
31. Niemi, H. M., & Kousa, P. (2020). A case study of students' and teachers' perceptions in a

Finnish highschool during the covid pandemic. International journal of Technology in Education and Science, 4(4), 352– 369. <https://doi.org/10.46328/ijtes.v4i4.167>

32. Qi, W. (2017) ‘evaluating a virtual collaborative environment for interactive distance teaching and learning: A case study’. Smart Innovation, Systems and Technologies, 11-18. [https://doi.org/10.1007/978-3-319-50212-0\\_2](https://doi.org/10.1007/978-3-319-50212-0_2)

33. Ryan, S. (2001). Is online learning right for you? American Agent & Broker, 73(6), 54-58.

34. Sintema, E. J. (2020). Effect of COVID-19 on the Performance of Grade 12 Students: Implications for STEM Education. Eurasia Journal of Mathematics, Science and Technology Education, 16(7), em1851. <https://doi.org/10.29333/ejmste/7893>

35. Song, L., Singleton, E. S., Hill, J. R., & Koh, M. H. (2004). Improving online learning: Student perceptions of useful and challenging characteristics. Internet and Higher Education, 7, 59-70.

36. Shen, C., & Chuang, H. (2010). Exploring users’ attitudes and intentions toward the interactive Whiteboard technology environment. International Review on Computers and Software, 5(2), 200–208.

37. Steen, H.L. (2008). Effective eLearning design. MERLOT Journal of Online Learning and Teaching, 4(4),526-532.

38. The Regional Risk Communication and Community Engagement (RCCE) Working Group (2020). COVID19: How to include marginalized and vulnerable people in risk communication and community engagement. Available at:[https://reliefweb.int/sites/reliefweb.int/files/resources/COVID19\\_CommunityEngagement\\_130320.pdf](https://reliefweb.int/sites/reliefweb.int/files/resources/COVID19_CommunityEngagement_130320.pdf) (accessed 10 July, 2021).

39. UNESCO. (2020). 1.37 billion students now home as COVID-19 school closures expand, Ministers scale up multimedia approaches to ensure learning continuity. Unesco.

40. UNESCO. (2020). Distance learning strategies in response to COVID-19 school closures. In UNESCO COVID-19 Education Response Education Sector issue notes.

41. Van Lancker, W., Parolin, Z. (2020). COVID-19, school closures, and child poverty: A social crisis in the making. Lancet Public Health 2020,5, 243–244.

42. World Health Organization. (2020). WHO Director-General’s Opening Remarks at the Media Briefing on COVID-19 -11 March 2020. Available online at: <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-202> (accessed July 3, 2021).

43. Yates, A., Starkey, L., Egerton, B., & Flueggen, F. (2020). High school students’ Experience of online learning during Covid-19: The influence of technology and pedagogy. Technology, pedagogy and education, 9, 1-15. <https://doi.org/10.1080/1475939X.2020.1854337>

44. Zhou, J., Zhang, Q. (2021). A survey Study on U.S. College students’ Learning Experience in COVID-19. Educ. Sci. 2021, 11, 248.<https://doi.org/10.3390/educsci11050248>.